Noting how an antibody to a ingested material can be linked to another drug molecule that then is active at neurons of a particular type, like dopamine receptors, So, when the antibody-drug gloms to the ingested material, it releases the codrug, causing a beneficial effect, is it possible that people with mental illness, like depression produce more of some chemical at their circulatory system? If they do, then antibodies with glomming released codrugs to that chemical could glom in proportion to the amount of that circulating chemical, which would cause another drug molecule to be released with each glomming, the released chemical would then address the mental illness, so if a depressed person makes more of some chemical at thier circulatory system, that chemical gets glommed,

releasing drug molecules which causes the person to cheer up,

I looked online and there is no one chemical that is a biomarker for depression, but there are numerous possibilities, some actual possible chemicals are:
“Only cortisol was identified as potential predictor for MDD, but results are influenced by the disease state.”

cortisol elevates with stress, so elevated cortisol persons might benefit from a beetter than well drug, perhaps relaxing, or optimism inducing, that also treats depression in those with depression

“The study by a group of researchers from around the U.S. and in Sweden finds that a specific, naturally-occurring chemical, called acetyl-L-carnitine, or LAC, is lower in the blood of people suffering from depression.

Researchers found a strong correlation between CRP levels and which drug regimen improved their symptoms:

- For patients whose CRP levels were less than 1 milligram per liter, escitalopram alone was more effective: 57 percent remission rate compared to less than 30 percent on the other drug.
- For patients with higher CRP levels, escitalopram plus bupropion was more likely to work: 51 percent remission rate compared to 33 percent on escitalopram alone.

This review provides a summary on the potential of peripheral biomarkers in major depression with a specific emphasis on those related to inflammatory/immune and oxidative stress/antioxidant defences. The complexities associated with biomarker assessment are reviewed specifically around their collection, analysis and interpretation. Focus is placed on the potential of peripheral biomarkers to aid diagnosis, predict treatment response, enhance treatment-matching, and prevent the onset or relapse of major depression.

Previous article in issue
Next article in issue

Abbreviations

8-OHdG
8-hydroxy-2-deoxyguanosine
8-oxoGuo
8-oxo-7,8-dihydroguanosine
BDNF
brain-derived neurotropic factor
BMI
body mass index
COX
cyclooxygenase
CRP
C-reactive protein
DSM
Diagnostic and Statistical Manual of Mental Disorders
ECT
electroconvulsive therapy
ESR
erythrocytes sedimentation rate
F2-isoPM
2,3-dinor-5,6-dihydro-15-F2t-isoprostane
GPx
glutathione peroxidase
GTP-CH1

GTP cyclohydrolase I
hs-CRP
high sensitivity CRP
IDO
indoleamine 2,3 dioxygenase
IFN
interferon
IL
interleukin
IL-2R
interleukin-2 receptor
KYN
kynurenine
KYNA
kynurenic acid
MDA
malondialdehyde
RA
rheumatoid arthritis
RBC
red blood cell
RNA
ribonucleoside
SOD
superoxide dismutase
SSRI
serotonin reuptake inhibitor
TNF
tumour necrosis factor
TRP
tryptophan
TRYCATs
tryptophan catabolites along the IDO pathway

As compared with healthy controls, depressed patients were characterized by higher lipid/protein complex levels [low-density lipoprotein, very low-density lipoprotein, N-

acetylglycoprotein and unsaturated lipid associated with lower individual amino acid levels (glycine, taurine, glutamine, alanine, valine, and leucine) and lower levels of other metabolites (glucose, myo-inositol, creatinine, creatine, acetate, lactate, and pyruvate)]. Taken together, NMR-based plasma metabonomics may represent a highly promising new biomarker research approach in MDD.

reminded of phase locked loops, and there are optical phase locked loops, the input frequency has jitter, and subtracting the jitter from the jitter from the input frequency leaves a higher frequency component, although stochastic the jitter can then be converged around just one frequency of the jitter to generate a homogenous, higher frequency waveform higher than the input

frequency; can this be used to generate a higher optical frequency than the input frequency, I read that at computers a crystal of like 200 mHz is used to generate a 2-4 gHz frequency the computer uses with the assistance of a phase locked loop